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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,431	11/20/2003	Julian R. Knudsen	15827-056001	9649
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FISH & RICHARDSON P.C. 5000 BANK ONE CENTER 1717 MAIN STREET DALLAS, TX 75201				
			EXAMINER RIDDLE, KYLE M	
			ART UNIT 3748	PAPER NUMBER

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,431

Applicant(s)

KNUDSEN ET AL.

Examiner

Kyle M. Riddle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8-11,14-18,21,23,26,27,29-32,34 and 35 is/are rejected.
- 7) ☒ Claim(s) 2,3,7,12,13,19,20,22,24,25,28,33 and 36 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02092004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims are objected to because of the following informalities:
 - Claims 12-16 depend from claim 9, but it appears to the examiner that they should depend from claim 11;
 - Claims 18-22 depend from claim 15, but it appears to the examiner that they should depend from claim 17;
 - Claims 20 and 34 cite the pushrod engaging member composed of a polymer and a cellulosic material, but it appears to the examiner that the pushrod engaging member is composed of a polymer or a cellulosic material as supported by the specification, page 5, lines 12-15, and claims 4, 14, and 26.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 23, 27, 29, 31, 32, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Wiegert (U.S. Patent 6,237,557).

Wiegert discloses an integrated push rod locator in cylinder head gasket comprising:

- a gasket provided to seal the interface between the cylinder block and cylinder head (column 1, lines 56-59, column 4, lines 22-25);

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- a gasket 20 provided with a plurality of bridges 36 to receive and locate push rods in place during assembly, the bridges 36 having apertures or openings 28 for receiving the push rods and push rod locator holes 42 (column 3, lines 18-28);

- bridges 36 designed to laterally support push rod prior to assembly with sufficient size and shape to maintain push rod location (column 3, lines 44-55, Figures 1 and 2);

- gasket 20 being formed from any conventional gasket material with the bridges being made of the same material (column 3, lines 56-65);

- assembling rocker arm carriers and rockers arms to the push rods in the cylinder head prior to mounting on the cylinder block (column 4, lines 3-10).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 5, 6, 8, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiegert in view of Kronich et al. (U.S. Patent 5,105,777).

Wiegert discloses an integrated push rod locator in cylinder head gasket comprising a gasket provided to seal the interface between the cylinder block and cylinder head, the gasket provided with a plurality of bridges to receive and locate push rods in place during assembly, the bridges having apertures or openings for receiving the push rods and push rod locator holes, the bridges designed to laterally support push rod prior to assembly with sufficient size and shape to maintain push rod location, the gasket being formed from any conventional gasket material with

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the bridges being made of the same material, and assembling rocker arm carriers and rockers arms to the push rods in the cylinder head prior to mounting on the cylinder block. He fails to disclose the specific material composition of the push rod or gasket.

Kronich et al. teach a metal head gasket with push rod guides with the head gasket 16 being composed of copper or aluminum and the push rods being iron or aluminum (column 4, lines 10-13, column 5, lines 35-43). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Kronich et al. in the push rods and gasket of Wiegert, since the use thereof would prevent wear on the push rods.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiegert in view of Alden (U.S. Patent 4,538,560).

Wiegert discloses a push rod and cylinder head gasket to seal the interface between the cylinder block and cylinder head, the gasket having bridges of sufficient size and shape to maintain push rod location, and having openings to receive, support, and locate push rods in place during assembly, the gasket being formed from any conventional gasket material with the bridges being made of the same material, and assembling rocker arm carriers and rockers arms to the push rods in the cylinder head prior to mounting on the cylinder block. Wiegert fails to disclose specific composition of the gasket.

Alden teaches head gaskets 35 made of silicone (polymer) or paper or cork (cellulose) (column 2, lines 40-45). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Alden in the gasket of Wiegert, since the use thereof provides specific gasket composition that would help prevent wear on the push rods.

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7. Claims 4 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiegert, as applied to claims 1 and 31 respectively, above, in view of Kronich et al., and further in view of Alden.

Wiegert, as modified by Kronich et al., discloses the invention cited above, however, fails to disclose the composition of the push rods and gasket.

Alden teaches head gaskets 35 made of silicone (polymer) or paper or cork (cellulose) (column 2, lines 40-45). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Alden in the gasket of Wiegert, as modified by Kronich et al. with push rods of stronger material than the gasket, since the use thereof provides specific gasket composition that would help prevent wear on the push rods.

8. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiegert, as applied to claim 1, above, in view of Kronich et al., and further in view of Mackawa et al. (U.S. Patent 6,299,175).

Wiegert, as modified by Kronich et al., discloses the invention cited above, however, fails to disclose polymeric materials formed on a metal gasket.

Mackawa et al. teach a metal gasket with a rubber (polymer) coating layer formed on one side. It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Mackawa et al. in the gasket of Wiegert, as modified by Kronich et al. with push rods of stronger material than the gasket, since the use thereof provides specific gasket composition that aids in the sealing properties of the gasket.

9. Claims 11, 16-18, and 21 are rejected under 35 U.S.C. 103(a) as being obvious over Wiegert.

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Wiegert discloses the push rod and cylinder head gasket cited above, however, fails to disclose a portion of the gasket guide wearing away during engine operation.

Wiegert cites the bridges 36 being made only strong enough to support the push rods until assembly of the engine is complete (column 3, lines 50-55). The inclusion of a portion of the bridges being made to wear away during engine operation would have been obvious to one having ordinary skill in the art depending on the design and shape characteristics of the supporting structure. Moreover, there is nothing in the record which establishes that the application of such portion being made to wear away represents a novel or unexpected result (See *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975)).

10. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being obvious over Wiegert in view of Alden.

Wiegert, as modified being obvious to include portions of the gasket that wear away during engine operation, discloses the invention cited above, however, fails to disclose the composition of the gasket.

Alden teaches head gaskets 35 made of silicone (polymer) or paper or cork (cellulose) (column 2, lines 40-45). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Alden in the gasket of Wiegert, as modified by Kronich et al. with push rods of stronger material than the gasket, since the use thereof provides specific gasket composition that would help prevent wear on the push rods.

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Allowable Subject Matter

11. Claims 2, 3, 7, 12, 13, 19, 20, 22, 24, 25, 28, 33, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The IDS (PTO-1449) filed on 9 February 2004 has been considered. An initialized copy is attached hereto.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 2 patents.

- Udagawa (U.S. Patent 4,828,275) discloses a gasket with elastic sealing members having an expandable elastic member surrounding the push rod hole.

- Udagawa (U.S. Patent 5,150,910) discloses a gasket with soft and hard seal coatings around the push rod holes.

Communication

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle M. Riddle whose telephone number is (703) 306-3409. The examiner can normally be reached on M-F (07:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

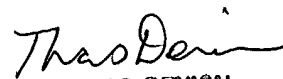
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kyle M. Riddle
Examiner
Art Unit 3748

kmr



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700